

IC100 SERIES

1-CIRCUIT up to 2-COMPRESSOR UNIT CONTROLLERS



IC100CX is Dixell's answer to real management and control requirements of **single circuit chiller units and heat pumps** (gas and water reversibility) with up to two compressors or a single compressor with capacity stages, by means of a compact instrument with the possibility of controlling units like: **air/air, air/water, water/water, motor-condensing**.

- Twin compressor functioning
- Function of compressor capacity stages for high and low condensing pressure
- ON/OFF or variable speed condensing fan control without the need to use external devices
- Forced and combined defrost
- Energy saving for time band or digital contact
- Internal data logger with up to 50 alarms
- Real time clock
- Voltage output for additional external relay management
- Analog input configurable as NTC, 4÷20mA and 0÷5V ratiometric
- Configurable relays, probes and digital inputs
- Easy programming through HOT KEY or PC (WIZMATE PROG TOOL KIT)
- TTL (convertible in RS485) serial output with ModBUS protocol
- Quick tab connectors on all models





COMPLETE

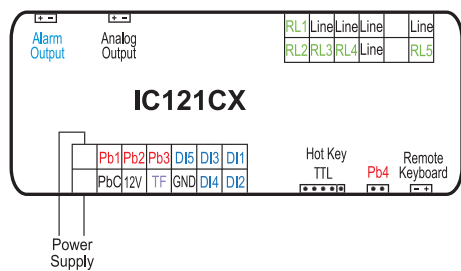
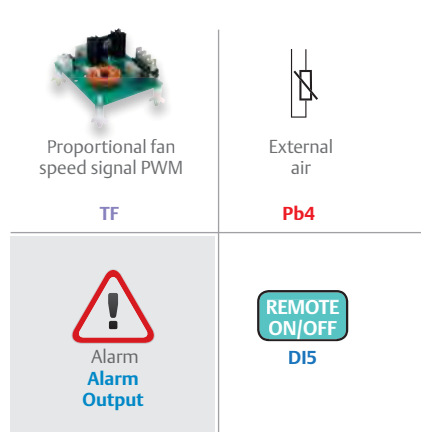
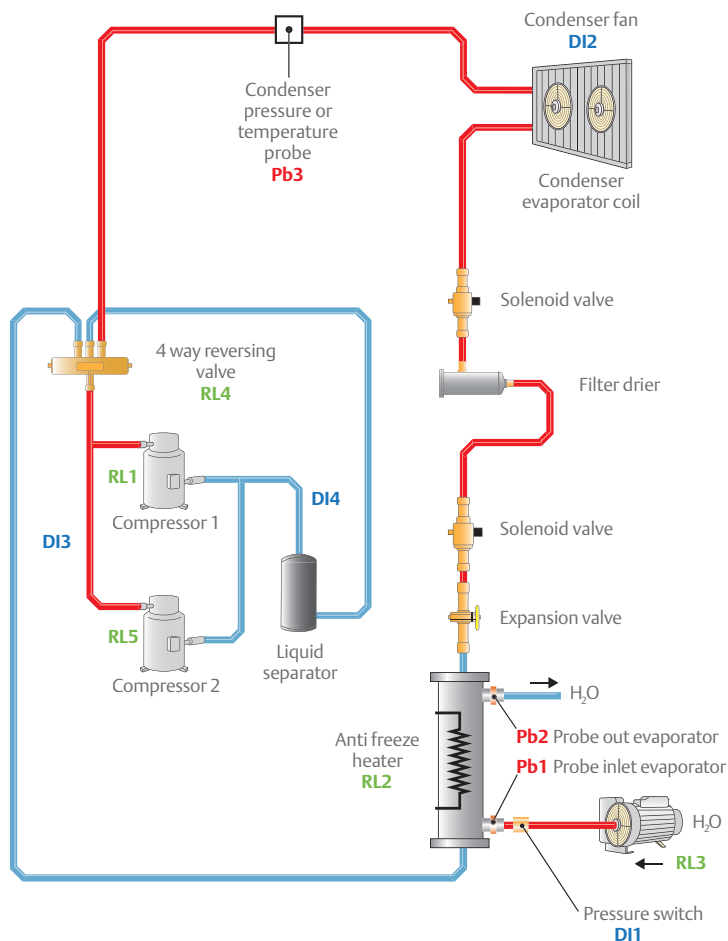
The dual display and the icons display complete information about the machine status.

With a single touch of one key, all main functions of the cooling system are displayed without the need to enter programming mode.

ICON	MEANING
	Condenser fan
	Voltage output ON for external relay
HP	High pressure alarm
Vset	Dynamic set/Energy saving ON
Flow!	Flow alarm

ICON	MEANING
°C	Celsius degrees
°F	Fahrenheit degrees
bar	Bar
PSI	PSI
1	Compressor 1
2	Compressor 2
	Unit ON - heat pump status (configurable as chiller)
	Unit ON - chiller status (configurable as heat pump)
	Defrost start delay/Defrost ON
	Clock
	Water pump - Supply fan
	Anti-freezing heater - Boiler
	Alarm
LP	Low pressure alarm
	Function menu
	Arrow keys

EXAMPLE of APPLICATION for 1-CIRCUIT up to 2-COMPRESSOR AIR/WATER CHILLER



1-CIRCUIT up to 2-COMPRESSOR UNIT CONTROLLERS



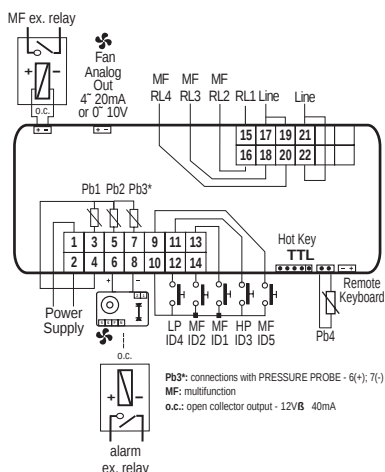
IC110CX	Advanced multifunction controller for chiller with 1 circuit and 1 compressor
IC111CX	Advanced multifunction controller for chiller/heat pump with 1 circuit and 1 compressor
IC120CX	Advanced multifunction controller for chiller with 1 circuit and 2 compressors
IC121CX	Advanced multifunction controller for chiller/heat pump with 1 circuit and 2 compressors

FEATURES	IC110CX - IC111CX	IC120CX - IC121CX
First display: n° digits	±4 d.p.	±4 d.p.
Second display: n° digits	±4 d.p.	±4 d.p.
Power supply	12, 24Vac/dc	12, 24Vac/dc
Probe inputs		
Pb1	NTC	NTC
Pb2	NTC	NTC
Pb3	NTC/4÷20mA/0÷5V config	NTC/4÷20mA/0÷5V config
Pb4	NTC/ID config	NTC/ID config
Digital inputs		
High pressure	pres	pres
Low pressure	pres	pres
N° 3 + 1 (Pb4)	config	config
Relay outputs		
RL1 Compressor 1	°8A	8A
RL2	°8A config	8A config
RL3	°8A config	8A config
RL4	°8A config	8A config
RL5	°8A config opt	8A config
Other outputs		
Analog	4÷20mA/0÷10V opt	4÷20mA/0÷10V opt
Signal for fan speed control	*PWM	PWM
Voltage output for external relay	12Vdc-40mA max	12Vdc-40mA max
TTL/Hot Key/Prog Tool Kit	pres	pres
Other		
Triac inside	2A opt	
Remote keyboard	VICX610	VICX610
Buzzer	opt	opt
Real time clock	opt	opt
Connection kit	CF-KIT, CAB/CJ15, CAB/CJ30, CW15-KIT, CW25-KIT	CF-KIT, CAB/CJ15, CAB/CJ30, CW15-KIT, CW25-KIT

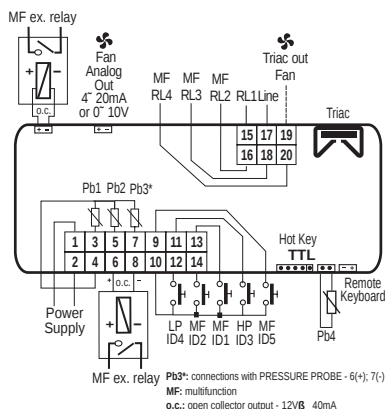
° With triac module: RL1 = 5A - RL2 = 5A - RL4 = 5A config - RL5 = not present - Connection kit: CWC15-KIT

* The PWM output is substituted with the output for the external relay driver when the triac is inside

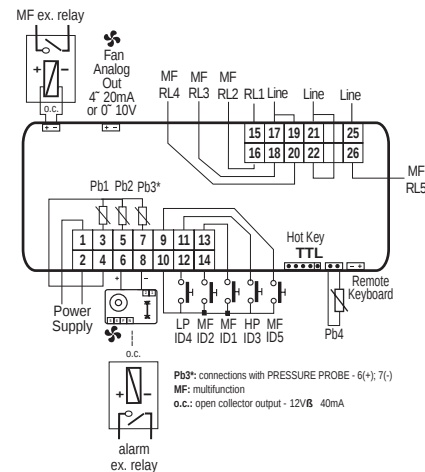
IC110CX - IC111CX



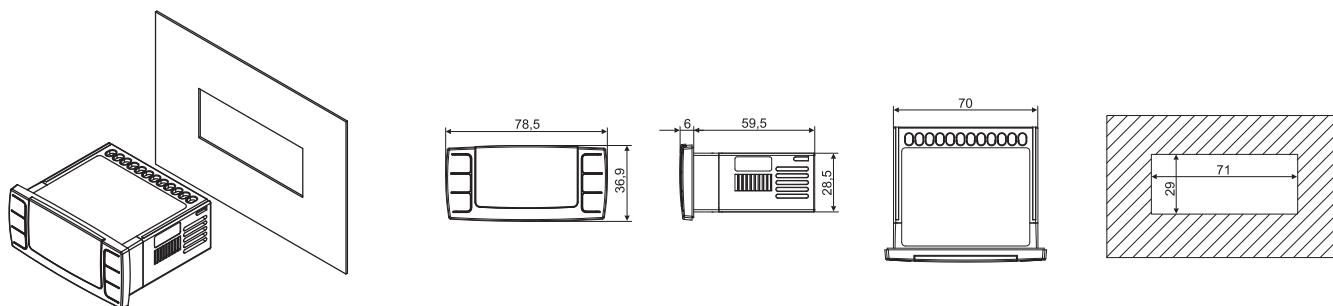
IC110CX - IC111CX (triac module inside)



IC120CX - IC121CX



DIMENSIONS & CUT-OUT



TECHNICAL DATA

Housing	self-extinguishing ABS
Format	frontal 32x74mm; depth 59,5mm
Display	4 digits red LED + 4 digits yellow LED + icons
Mounting	panel mounting in a 29x71mm cut-out
Front protection	IP65
Connections	disconnectable connectors 12-14 or 14-6 pins
Power supply	12Vac/dc -10% ÷ +15%, 24Vac/dc ±10% 50/60Hz
Power absorption	5VA max
Relay outputs	SPDT 8(3)A, 250Vac - SPST 5(2)A, 250Vac
Control mod of external relay output	12Vdc - 40mA max
Analog inputs	PWM signal (single-fan module) 4÷20mA (fan module) 0÷10V (fan module)
Data storing	non-volatile memory (EEPROM)
Operating temperature	-10÷60°C (14÷140°F)
Storage temperature	-30÷85°C (-22÷185°F)
Relative humidity	20÷85% (non condensing)
Measuring and regulation range	pressure probe: 0÷50bar (725PSI) NTC probe: -50÷110°C (-58÷230°F)
Resolution	0,1°C or 1°F or 0,1bar or 1PSI
Accuracy (at ambient temperature)	±0,8°C (±1°F)

HOW to ORDER

I	C	1			C	X	-	A	B	C	D	0
---	---	---	--	--	---	---	---	---	---	---	---	---

IC100

A	B	C				D	
Power supply	Regulation inputs	IC110CX / IC111CX - Options				Buzzer	RTC
0 = 12Vac/dc	0 = 4xNTC	4÷20mA	Aux	Triac 2A	0÷10V	0 = No	No
1 = 24Vac/dc	1 = 3xNTC + 1x4÷20mA	0 = No	No	No	No	1 = Yes	No
	2 = 3xNTC + 1x0÷5V	1 = No	Yes	No	No	2 = No	Yes
		2 = Yes	No	No	No	3 = Yes	Yes
		3 = Yes	Yes	No	No		
		4 = No	No	Yes	No		
		5 = No	No	No	Yes		
		6 = No	Yes	No	Yes		
		7 = No	No	Yes	Yes		
		IC120CX / IC121CX - Options					
		4÷20mA			0÷10V		
		0 = No			No		
		1 = Yes			No		
		2 = No			Yes		